CHARGE NUMBER: 2501

PROGRAM TITLE: NUCLEAR AND RADIOCHEMISTRY OF SMOKE

PERIOD COVERED: May 1 - May 31, 1973

PROJECT LEADER: R. W. Jenkins, Jr.

DATE OF REPORT: June 4, 1973

The growth run of $^{14}CO_2$ tobacco has been successfully completed. The two burley plants have been harvested and are presently being cured. The bottom leaves from the two bright plants have been harvested and the top leaves left to continue their growth in the resealed chamber.

The Waters liquid chromatograph has been placed into operation.

Additional samples of MF blend, labelled with a scintillating phosphor, have been analyzed for Project 1801.

The Finnigan mass spectrometer has been connected to our GC-smoking machine and after debugging, spectra of the gas phase portion of smoke from IRI cigarettes are being interpreted. Runs will be made using a Chrom 101 and a Parapak Q columns. The identification of the peaks eluting from these columns will aid in interpreting the results of mainstream smoke composition from tobacco with added ^{14}C compounds.

The refrigeration unit has been installed in the new small growth chamber.

Preliminary studies of the gross difference between green freeze-dried tobacco and laboratory-cured bright tobacco have been carried out. Moisture determinations on the total samples and TLC studies of the hexane extracts of both samples have been conducted.

REFERENCES

1. R. Bass 5385
2. R. Comes 5521
3. M. Core 6066
4. M. Edmonds 6250
5. B. Francis 6251
6. G. Newell 5389

R. W Jenkins/slb

/slb